FRBSF Weekly Letter

Number 92-44, December 11, 1992

Sluggish Money Growth: Japan's Recent Experience

After years of being the fastest growing among the major industrial economies, Japan appears to be in the midst of a cyclical downturn. Growth has slowed from 5.2 percent in 1990 (year-over-year) to 4.5 percent in 1991, and the OECD forecasts that 1992 will come in at 1.8 percent. Such moderate growth is generally associated with recessions in Japan (see *Weekly Letter* 92-10).

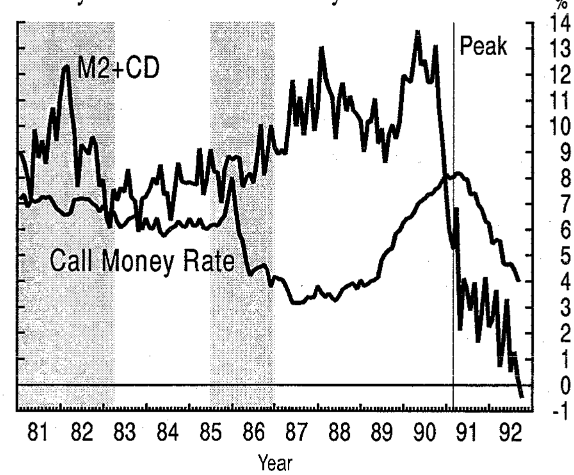
In response to the slowdown in economic activity, Japanese monetary policy began to ease in the middle of 1991, and since then, Japanese interest rates have declined sharply. Despite lower interest rates, however, growth of broad money has not picked up.

This *Weekly Letter* discusses the recent behavior of money and interest rates in Japan, and argues that an important reason for the sluggish money growth is the sharp decline in asset prices. An examination of this issue is of interest for at least two reasons. First, sluggish money growth in Japan may signal a weak recovery there; this could affect the U.S. economy because robust growth in Japan has been an important source of economic stimulus in the U.S. in recent years, by directly or indirectly boosting the demand for U.S. exports. Second, Japan's recent experience may shed light on the factors that have recently contributed to slow money growth in the U.S.

Monetary cycles and asset prices

To provide some historical perspective, Chart 1 illustrates the behavior of a short-term market rate of interest (the call money rate) and broad money (M2+CD) growth in Japan from 1981 to 1992. Shaded areas define peak-to-trough dates for earlier recessions as defined by the Economic Planning Agency (EPA) of Japan. We have added the vertical line in February 1991 as a potential peak identified by an index of economic activity (diffusion index) that is also used by the EPA in dating recessions. In Chart 1, the call money rate can be interpreted as an indicator of the monetary policy stance as it is reflected in short-term credit conditions, while the growth of broad money illustrates how such a stance is reflected

Chart 1
JAPAN
Money Growth and Call Money Rate



in the monetary liabilities of the banking sector and bank credit behavior.

Examination of Chart 1 suggests that monetary developments in the second half of the 1980s may be divided into three distinct periods. In the first period, 1986 to mid-1989, monetary policy eased considerably; the call money rate declined from a peak of 6.9 percent to an average of 5.5 percent, and money growth accelerated to an average of 10 percent annually, compared to 8.3 percent from 1981 to 1985. In the second period, from mid-1989 to mid-1991, policy tightened; the call money rate rose to a peak of 8.2 percent and broad money growth responded with a lag, rising to a within-period peak of 8.4 percent in July 1990, and then declining sharply. In the third period, from mid-1991 to the present, monetary policy eased and the call money rate again fell sharply. However, as the Chart vividly illustrates, money growth has remained sluggish, growing at an average of around 2.5 percent up to the middle of this year, and most recently declining. Such sluggish money growth has not been observed during past recessions identified in the Chart.

For reasons that are not entirely clear, Japan's recent monetary cycle has been associated with sharp fluctuations in asset prices. Paralleling the easing of monetary policy, urban land prices increased two and a half times in major urban areas between 1985 and 1988, in large part due to a surge in investment in residential apartment buildings. Consumer price inflation, however, remained moderate. Therefore, the monetary easing in the second half of the 1980s has been associated with significant "asset price inflation" in Japan. Likewise, the monetary tightening from mid-1989 to mid-1991 has been associated with a correspondingly sharp deflation in asset prices. According to a recent Japanese government survey, real estate prices in major urban centers plunged 15 percent this year, and land prices in Tokyo and Osaka are now respectively 20 and 40 percent off their peaks. Declines in land prices have not been observed in Japan since the mid-1970s.

A similar pattern of volatility is apparent in the behavior of stock prices. The Nikkei stock market index doubled from below 19,000 in 1987 to a peak of 38,000 in December 1989. The index fell steadily after December 1989, and began to drop steeply in 1992 to a low of 14,300 in August. It was trading above 17,300 in early December. Such a steep decline in Japan's stock index is unprecedented.

Explaining sluggish money growth

There are two ways of assessing the behavior of monetary aggregates. One may focus on the liability side of the bank balance sheet and analyze the behavior of money demand. Alternatively, one may focus on the asset side and analyze factors that may influence bank credit, which in turn is reflected in the behavior of monetary aggregates. This *Weekly* focuses on bank credit behavior.

As is apparent from Chart 1, the recent slowdown in broad money growth is very unusual, especially given prevailing interest rates. Compared to other postwar recessions in Japan, the current economic slowdown is not unusually severe (in terms of output growth or unemployment), so the sluggish money growth cannot be fully explained by the weakness in credit demand that is typically associated with a cyclical downturn. Thus, some other factor appears to be dampening the growth in money and credit.

One possible explanation for unusually sluggish money growth is that the decline in asset prices has contributed to unusually weak demand for credit. Demand for credit in the real estate sector may be unusually weak because the sharp declines in real estate values have left developers unable or unwilling to seek new loans. In theory, this should not prevent borrowing by other investors who take advantage of sharply reduced real estate prices. However, other investors may be reluctant to acquire real estate even at the sharply reduced prices currently prevailing if they are less familiar with real estate markets than are existing developers, or are concerned that real estate values may fall further.

Demand for credit in the corporate sector also may be unusually weak. To see why, note that the stock market boom of the second half of the 1980s provided a very cheap source of funds for Japanese firms. This had three effects that now may be dampening the demand for credit in the corporate sector more than usual for a period of slow growth. First, cheap funds stimulated an earlier investment boom. As a result, firms may now be satisfied with existing levels of capacity and therefore reluctant to engage in much additional investment or borrowing even if economic activity picks up. Second, in the late 1980s Japanese firms issued a large volume of bonds allowing investors the option to convert these into equity (warrants). Due to the recent decline in stock prices, these options have not been exercised, and corporations may have to borrow to redeem these bonds as they mature. This may make corporations reluctant to engage in additional borrowing. Third, Japanese firms accumulated large amounts of liquidity when money was cheap in the late 1980s: corporate holding of cash, deposits, and short term securities in March 1992 were equivalent to 1.7 months of sales, down from a peak of 2.0 in 1990, but still above the average of 1.2 during the first half of the 1980s. This liquidity dampens desire for additional credit.

A credit crunch?

Aside from contributing to unusually weak credit demand, the decline in asset prices may have made banks reluctant to extend new loans because of capital constraints, a situation that has been described as contributing to a "credit crunch" in the U.S. context.

In 1988, Japan's Ministry of Finance announced its intention to require Japanese banks to maintain a certain ratio of capital to risk-adjusted assets, in conformity with international bank capital standards agreed to at Basle. These capital adequacy standards require that Japanese banks achieve an overall capital-asset ratio equal to at least 8 percent by March 31, 1993. Bank capital consists of Tier One capital, mainly shareholders' funds and retained earnings, and Tier Two capital, which includes subordinated debt, preferred shares, and "hidden" assets, that is, unrealized capital gains. To satisfy the 8 percent ratio, at least half of bank capital must be Tier One capital. These requirements are more stringent than those provided for by earlier Japanese banking law, which imposed weaker links between total assets and the amount of capital held.

Because of the new capital requirements, increases in bank loans must now be backed by increases in bank capital. However, asset price deflation has weakened the capital position of Japanese banks in several ways. First, the collapse of the real estate market has saddled Japanese banks with a growing burden of nonperforming loans. According to the Ministry of Finance estimate, nonperforming loans held by the 21 largest banks rose from ¥8 trillion at March 31, 1992 to ¥12.3 trillion ($103 billion) at the end of September 1992. This is about 2 percent of total bank loans outstanding. Private sector analysts estimate that problem loans held by the financial sector may in the future turn out to be several orders of magnitude larger. Loan loss reserves, on the other hand, are equivalent to only 0.8 percent of banks' outstanding loans. To the extent that banks have to absorb losses on nonperforming loans, they cannot replenish their capital and instead have to cut back on lending.

Second, Japanese banks hold close to 20 percent of outstanding corporate shares, making them collectively among the largest shareholders (see *Weekly Letter* 91-13). During the stock market boom, Japanese banks could sell these stocks and realize substantial capital gains that they could use to increase Tier One capital and support increased lending. (For institutional reasons, the extent to which Japanese banks sold shares was limited.) Alternatively, Japanese banks could hold the stocks, and count 45 percent of the unrealized capital gains on these holdings as Tier Two capital under the Basle risk-based capital requirements. However, the steep drop in share prices has significantly reduced the ability of banks to reap realized capital gains as well as the magnitude of unrealized capital gains.

Finally, the stock market decline has made it less attractive for Japanese banks to issue new equity to shore up their Tier One capital. (However, banks have had some success strengthening Tier Two capital by issuing subordinated debt.)

In spite of these various pressures on the capital position of Japanese banks, the latest data indicate that Japanese banks are successfully meeting the capital standards agreed to at Basle. However, these pressures may have contributed to the sluggish growth in money and lending, particularly in the face of continuing uncertainty about the trends in asset prices.

Conclusions

Asset price deflation appears to have contributed to unusual weakness in the *demand* for credit in Japan. In combination with increased capital requirements, asset price deflation also may have contributed to a reduction in the *supply* of bank credit. Taken together, weak demand for and supply of credit due to falling asset prices help explain unusually weak growth in the monetary aggregate, M2+CD. However, further empirical analysis is needed to determine whether it is demand or supply effects which are more important.

Will weak money growth hinder economic recovery in Japan? A number of factors mitigate this concern. Deposits in the postal savings system, which are a relatively close substitute for money, have been growing at a rapid rate, so the sluggish growth in broad money to some extent overstates the extent of monetary contraction in the economy. Japanese corporations have also been holding relatively large amounts of liquid assets, which reduces their vulnerability to any constraints Japanese banks may face in increasing the supply of credit. Finally, Japan has great leeway to offset contractionary influences by stimulating the economy through fiscal policy, as is evident in the recently unveiled plan to increase government spending.

Ramon Moreno
Economist

Sun Bae Kim
Economist

Research Department
Federal Reserve
Bank of
San Francisco
P.O. Box 7702
San Francisco, CA 94120

Printed on recycled paper with soybean inks.

Index to Recent Issues of *FRBSF Weekly Letter*

DATE	NUMBER	TITLE	AUTHOR
5/22	92-21	Can Paradise Be Affordable?	Cromwell/Schmidt
5/29	92-22	The Silicon Valley Economy	Sherwood-Call
6/5	92-23	EMU and the ECB	Walsh
6/19	92-24	Perspective on California	Sherwood-Call
7/3	92-25	Commercial Aerospace: Risks and Prospects	Cromwell
7/17	92-26	Low Inflation and Central Bank Independence	Parry
7/24	92-27	First Quarter Results: Good News, Bad News	Trenholme/Neuberger
8/7	92-28	Are Big U.S. Banks Big Enough?	Furlong
8/21	92-29	What's Happening to Southern California?	Sherwood-Call
9/4	92-30	Money, Credit, and M2	Judd/Trehan
9/11	92-31	Pegging, Floating, and Price Stability: Lessons from Taiwan	Moreno
9/18	92-32	Budget Rules and Monetary Union in Europe	Glick/Hutchison
9/25	92-33	The Slow Recovery	Throop
10/2	92-34	Ejido Reform and the NAFTA	Schmidt/Gruben
10/9	92-35	The Dollar: Short-Run Volatility and Long-Run Adjustment	Throop
10/16	92-36	The European Currency Crisis	Glick/Hutchison
10/23	92-37	Southern California Banking Blues	Zimmerman
10/30	92-38	Would a New Monetary Aggregate Improve Policy?	Motley
11/6	92-39	Interest Rate Risk and Bank Capital Standards	Neuberger
11/13	92-40	NAFTA and U.S. Banking	Laderman/Moreno
11/20	92-41	A Note of Caution on Early Bank Closure	Levonian
11/27	92-42	Where's the Recovery?	Cromwell/Trenholme
12/4	92-43	Diamonds and Water: A Paradox Revisited	Schmidt

The *FRBSF Weekly Letter* appears on an abbreviated schedule in June, July, August, and December.